



HMR2053usnpl.ST25
SEQUENCE LISTING

<110> AVENTIS PHARMACEUTICALS INC.

GUO, Yong

MORSE, Clarence

YAO, Zhengbin

<120> MEMBRANE PENETRATING PEPTIDES AND USES THEREOF

<130> HMR2053 USNPL

<140> 09/933,780

<141> 2001-08-21

<150> US 60/27,647

<151> 2000-08-25

<150> GB 0103110.3

<151> 2001-02-07

<160> 54

<170> PatentIn version 3.0

<210> 1

<211> 10

<212> PRT

<213> Artificial

<220>

<223> Sequence of nuclear location sequence contained within the N-terminal of IL-alpha propiece

<400> 1

Asn Gly Lys Val Leu Lys Lys Arg Arg Leu
1 5 10

<210> 2

<211> 16

<212> PRT

<213> Artificial

<220>

<223> Signal sequence peptide from Antennapedia homeodomain

<400> 2

Arg Gln Ile Lys Ile Trp Phe Gln Asn Arg Arg Met Lys Trp Lys Lys
1 5 10 15

<210> 3

<211> 15

<212> PRT

<213> Artificial

<220>

<223> The fibroblast growth factor signal sequence peptide

RECEIVED
FEB 19 2003
TECH CENTER 1600/2900

TECH CENTER 1600/2900
RECEIVED
FEB 19 2003
03 FEB 12 PM 12:19

HMR2053usnp1.ST25

<400> 3

Ala Ala Val Ala Leu Leu Pro Ala Val Leu Leu Ala Leu Leu Ala
1 5 10 15

<210> 4

<211> 29

<212> PRT

<213> Artificial

<220>

<223> HIV tat signal sequence peptide

<400> 4

Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly Arg Lys Lys Arg
1 5 10 15

Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr His
20 25

<210> 5

<211> 4

<212> PRT

<213> Artificial

<220>

<223> Peptide sequence of an N-terminal fluorescein isothiocyanate (FITC) peptide motif

<400> 5

Gly Gly Gly Gly
1

<210> 6

<211> 7

<212> PRT

<213> Artificial

<220>

<223> Fragment of IFN-gamma

<400> 6

Arg Lys Arg Lys Arg Ser Arg
1 5

<210> 7

<211> 7

<212> PRT

<213> Artificial

<220>

<223> Fragment of the N-terminus of fibroblast growth factor.

<400> 7

Asn Tyr Lys Lys Pro Lys Leu

HMR2053usnpl.ST25

1 5

<210> 8
<211> 8
<212> PRT
<213> Artificial

<220>
<223> Linus luteus nuclear protein import sequence

<400> 8

Lys Pro Lys Lys Lys Lys Glu Lys
1 5

<210> 9
<211> 5
<212> PRT
<213> Artificial

<220>
<223> Sequence of the basic motif in the nuclear protein import sequence of Smad 3 protein

<400> 9

Lys Lys Leu Lys Lys
1 5

<210> 10
<211> 11
<212> PRT
<213> Artificial

<220>
<223> Sequence of intracellular loop of 5HT2A receptor

<400> 10

Ser Leu Glu Lys Lys Leu Gln Asn Ala Thr Asn
1 5 10

<210> 11
<211> 23
<212> PRT
<213> Artificial

<220>
<223> Sequence of C-terminal transmembrane 7 domain derived from 5HT2A receptor

<400> 11

Lys Thr Tyr Arg Ser Ala Phe Ser Arg Tyr Ile Gln Tyr Lys Glu Asn
1 5 10 15

Lys Lys Pro Leu Gln Leu Ile
20

HMR2053usnpl.ST25

<210> 12
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Fragment of HIV TAT

<400> 12

Arg Lys Lys Arg Arg Gln Arg Arg Arg
1 5

<210> 13
<211> 4
<212> PRT
<213> Artificial

<220>
<223> peptide

<400> 13

Gly Phe Leu Gly
1

<210> 14
<211> 5
<212> PRT
<213> Artificial

<220>
<223> Peptide

<400> 14

Asp Asp Asp Asp Lys
1 5

<210> 15
<211> 4
<212> PRT
<213> Artificial

<220>
<223> peptide

<400> 15

Glu Tyr Phe Pro
1

<210> 16
<211> 16
<212> PRT
<213> Artificial

<220>
<223> Nuclear protein import sequence of hPER1

<400> 16

Ser Arg Arg His His Cys Arg Ser Lys Ala Lys Arg Ser Arg His His
1 5 10 15

<210> 17

<211> 16

<212> PRT

<213> Artificial

<220>

<223> Peptide

<400> 17

Gly Arg Arg His His Cys Arg Ser Lys Ala Lys Arg Ser Arg His His
1 5 10 15

<210> 18

<211> 23

<212> PRT

<213> Artificial

<220>

<223> peptide

<400> 18

Gly Met Asp Tyr Lys Asp Asp Asp Asp Lys Gly Tyr Gly Arg Lys Lys
1 5 10 15

Lys Arg Arg Gln Arg Arg Arg

20

<210> 19

<211> 23

<212> PRT

<213> Artificial

<220>

<223> peptide

<400> 19

Gly Met Asp Tyr Lys Asp Asp Asp Asp Lys Gly Tyr Gly Arg Lys Lys
1 5 10 15

Lys Arg Arg Gln Arg Arg Arg

20

<210> 20

<211> 19

<212> PRT

<213> Artificial

<220>

<223> peptide

HMR2053usnpl.ST25

<400> 20

Gly Met Asp Tyr Lys Asp Asp Asp Asp Lys Gly Met Asp Tyr Asp Asp
1 5 10 15

Asp Asp Lys

<210> 21

<211> 17

<212> PRT

<213> Artificial

<220>

<223> peptide

<400> 21

Gly Arg Gln Ile Lys Ile Trp Phe Gln Asn Arg Arg Met Lys Trp Lys
1 5 10 15

Lys

<210> 22

<211> 10

<212> PRT

<213> Artificial

<220>

<223> peptide

<400> 22

Gly Arg Arg Arg Arg Arg Arg Arg Arg Arg
1 5 10

<210> 23

<211> 10

<212> PRT

<213> Artificial

<220>

<223> peptide

<400> 23

Gly Lys Lys Lys Lys Lys Lys Lys Lys Lys
1 5 10

<210> 24

<211> 10

<212> PRT

<213> Artificial

<220>

<223> peptide

<400> 24

HMR2053usnp1.ST25

Gly His His His His His His His His His
1 5 10

<210> 25
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Peptide

<400> 25

Gly Asp Pro Lys Lys Lys Arg Lys Val
1 5

<210> 26
<211> 19
<212> PRT
<213> Artificial

<220>
<223> peptide

<400> 26

Gly Lys Lys Thr Gly Lys Asn Arg Lys Leu Lys Ser Lys Arg Val Lys
1 5 10 15

Pro Arg Asp

<210> 27
<211> 12
<212> PRT
<213> Artificial

<220>
<223> Peptide

<400> 27

Gly Arg Lys Gly Lys His Lys Arg Lys Lys Leu Pro
1 5 10

<210> 28
<211> 18
<212> PRT
<213> Artificial

<220>
<223> peptide

<400> 28

Gly Lys Arg Val Ala Lys Arg Lys Leu Ile Glu Gln Asn Arg Glu Arg
1 5 10 15

Arg Arg

<210> 29
<211> 18
<212> PRT
<213> Artificial

<220>
<223> peptide

<400> 29

Gly Arg Lys Leu Lys Lys Lys Asn Glu Lys Glu Asp Lys Arg Pro
1 5 10 15

Arg Thr

<210> 30
<211> 17
<212> PRT
<213> Artificial

<220>
<223> peptide

<400> 30

Gly Lys Lys Thr Asn Leu Phe Ser Ala Leu Ile Lys Lys Lys Thr
1 5 10 15

Ala

<210> 31
<211> 18
<212> PRT
<213> Artificial

<220>
<223> peptide

<400> 31

Gly Arg Arg Glu Arg Asn Lys Met Ala Ala Ala Lys Cys Arg Asn Arg
1 5 10 15

Arg Arg

<210> 32
<211> 18
<212> PRT
<213> Artificial

<220>
<223> peptide

HMR2053usnpl.ST25

<400> 32

Gly Lys Arg Ala Arg Asn Thr Glu Ala Ala Arg Arg Ser Arg Ala Arg
1 5 10 15

Lys Leu

<210> 33
<211> 14
<212> PRT
<213> Artificial

<220>
<223> peptide

<400> 33

Gly Arg Arg Arg Arg Ala Thr Ala Lys Tyr Arg Thr Ala His
1 5 10

<210> 34
<211> 15
<212> PRT
<213> Artificial

<220>
<223> peptide

<400> 34

Gly Lys Arg Arg Arg Arg Ala Thr Ala Lys Tyr Arg Ser Ala His
1 5 10 15

<210> 35
<211> 12
<212> PRT
<213> Artificial

<220>
<223> peptide

<400> 35

Gly Arg Arg Arg Arg Lys Arg Leu Ser His Arg Thr
1 5 10

<210> 36
<211> 10
<212> PRT
<213> Artificial

<220>
<223> peptide

<400> 36

Gly Arg Arg Arg Arg Glu Arg Asn Lys
1 5 10

HMR2053usnp1.ST25

<210> 37
<211> 16
<212> PRT
<213> Artificial

<220>
<223> peptide

<400> 37

Gly Lys His Arg His Glu Arg Gly His His Arg Asp Arg Arg Glu Arg
1 5 10 15

<210> 38
<211> 17
<212> PRT
<213> Artificial

<220>
<223> peptide

<400> 38

Gly Lys Lys Lys Arg Lys Leu Ser Asn Arg Glu Ser Ala Lys Arg Ser
1 5 10 15

Arg

<210> 39
<211> 16
<212> PRT
<213> Artificial

<220>
<223> peptide

<400> 39

Ser Arg Arg His His Cys Arg Ser Lys Ala Lys Arg Ser Arg His His
1 5 10 15

<210> 40
<211> 16
<212> PRT
<213> Artificial

<220>
<223> peptide

<400> 40

Ser Ala Arg His His Cys Arg Ser Lys Ala Lys Arg Ser Arg His His
1 5 10 15

<210> 41
<211> 16
<212> PRT

HMR2053usnp1.ST25

<213> Artificial

<220>

<223> peptide

<400> 41

Ser Arg Ala His His Cys Arg Ser Lys Ala Lys Arg Ser Arg His His
1 5 10 15

<210> 42

<211> 16

<212> PRT

<213> Artificial

<220>

<223> peptide

<400> 42

Ser Arg Arg Ala His Cys Arg Ser Lys Ala Lys Arg Ser Arg His His
1 5 10 15

<210> 43

<211> 16

<212> PRT

<213> Artificial

<220>

<223> peptide

<400> 43

Ser Arg Arg His Ala Cys Arg Ser Lys Ala Lys Arg Ser Arg His His
1 5 10 15

<210> 44

<211> 16

<212> PRT

<213> Artificial

<220>

<223> peptide

<400> 44

Ser Arg Arg His His Ala Arg Ser Lys Ala Lys Arg Ser Arg His His
1 5 10 15

<210> 45

<211> 16

<212> PRT

<213> Artificial

<220>

<223> peptide

<400> 45

HMR2053usnpl.ST25

Ser Arg Arg His His Cys Ala Ser Lys Ala Lys Arg Ser Arg His His
1 5 10 15

<210> 46
<211> 16
<212> PRT
<213> Artificial

<220>
<223> peptide

<400> 46

Ser Arg Arg His His Cys Arg Ala Lys Ala Lys Arg Ser Arg His His
1 5 10 15

<210> 47
<211> 16
<212> PRT
<213> Artificial

<220>
<223> peptide

<400> 47

Ser Arg Arg His His Cys Arg Ser Ala Ala Lys Arg Ser Arg His His
1 5 10 15

<210> 48
<211> 16
<212> PRT
<213> Artificial

<220>
<223> peptide

<400> 48

Ser Arg Arg His His Cys Arg Ser Lys Ala Ala Arg Ser Arg His His
1 5 10 15

<210> 49
<211> 16
<212> PRT
<213> Artificial

<220>
<223> peptide

<400> 49

Ser Arg Arg His His Cys Arg Ser Lys Ala Lys Ala Ser Arg His His
1 5 10 15

<210> 50
<211> 16
<212> PRT
<213> Artificial

HMR2053usnp1.ST25

<220>
<223> peptide

<400> 50

Ser Arg Arg His His Cys Arg Ser Lys Ala Lys Arg Ala Arg His His
1 5 10 15

<210> 51
<211> 16
<212> PRT
<213> Artificial

<220>
<223> peptide

<400> 51

Ser Arg Arg His His Cys Arg Ser Lys Ala Lys Arg Ser Ala His His
1 5 10 15

<210> 52
<211> 13
<212> PRT
<213> Artificial

<220>
<223> peptide

<400> 52

Arg Arg His His Cys Arg Ser Lys Ala Lys Arg Ser Arg
1 5 10

<210> 53
<211> 15
<212> PRT
<213> Artificial

<220>
<223> peptide

<400> 53

Gln Glu Leu Ser Glu Gln Ile His Arg Leu Leu Leu Gln Pro Val
1 5 10 15

<210> 54
<211> 4
<212> PRT
<213> Artificial

<220>
<223> peptide

<220>
<221> misc_feature
<223> X = R, H or K

HMR2053usnp1.ST25

<400> 54

Xaa Xaa Xaa Xaa
1